

MASTER YOUR HORMONES, BURN FAT



PRESENTED BY MIKE GEARY

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**Presented By Mike Geary,
“The Nutrition Watchdog”**

Your Hormones Are Key

Fat loss is ALL about hormones.

A lot of people think that the only thing you need to do to burn fat is to eat less.

While you absolutely need to create a calorie deficit (through portion control and increased calorie burn with exercise) to use your extra fat as energy, this does NOT mean that cutting calories will automatically help you lose weight.

Your different fat-burning hormones are what dictate whether your body will burn off use your body fat as energy, or if it's primed to store every tiny bit of food you eat.

This is exactly why we created this bonus... to help you understand how the different hormones in your body works, and help you control them in order to burn more fat.

And once you **master** them... you'll be able to burn as much fat as you want, when you want it.

Here's to your success!

Insulin

Insulin is a hormone is secreted by your pancreas. Any time the glucose (sugar) in your blood is elevated beyond an acceptable range, the pancreas will secretes insulin. Insulin's sole mission is to lower blood sugar by taking it out of the blood and storing it in your cells. That is the one and only thing it does.

This is very important because high blood sugar levels can cause damage to your organs and tissues. Insulin's goal is to take the excess sugar out of the blood so it doesn't destroy your organs and tissues. For example, high blood sugar literally corrodes the inside of your vessels. This is why individuals with diabetes develop things like diabetic retinopathy, which is a loss of eyesight causes when the vessels in the eyes are destroyed by high blood sugar.

Insulin is an anabolic hormone which means it stores things in the body. So from a weight-loss perspective, insulin can play a big factor in someone having trouble losing weight. If you have high levels of insulin, all it knows how to do is store things and if you want to lose fat you need to be breaking things down not storing them. To give you an example, when you eat a meal your blood sugar goes up a little bit. And since insulin is secreted in response to blood sugar it will also go up a little bit. Insulin will then take that sugar out of the blood bringing blood sugar back down to normal levels. This is how a healthy person responds.

In some people, their ability to manage their blood sugar levels is compromised and they develop hypoglycemia, which is low blood sugar. When you are hypoglycemic, you will usually feel jittery, lethargic, grumpy and like you want to devour something sugary to raise your blood sugar levels. After you eat something high in sugar your blood sugar level will shoot up. This higher blood sugar will also cause a higher response of insulin. Instead of insulin bringing blood sugar levels back to normal, it drops it to below normal levels. So this brings you right back to where you started, felling jittery, lethargic, grumpy and like you want to devour something sugary! And the vicious cycle continues.

Now let's look at someone with insulin resistance, which is pre-diabetes. In this scenario, the person eats something, their blood sugar goes up and then it goes down slightly, but then it stays elevated above the normal or safe level. This happens is because when you have insulin resistance or full blown diabetes your cells no longer respond to insulin. When the cells don't respond insulin is unable to do its important job of taking the sugar out of the blood so the sugar just has to stay there. This is when damage to the organs and tissues starts to occur.

Insulin Resistance and Diabetes

There are receptors on cells that only allow certain things in and certain things out. They are sort of like a lock that can only be opened or closed with the right key. For example,

sugar cannot get into the cells alone because it doesn't have the right key. That is why sugar needs insulin. Insulin is the key that opens the lock on the cells so sugar can go inside. When you have a healthy body that is not insulin resistant this is exactly how this works and there are no problems. When you do have insulin resistance or diabetes things are not so easy.

Insulin VS The Club Bouncer

I am sure all of you have been to a club or two in your day. You know that one friend who was always able to get you into the club VIP without paying or waiting in line? Well you can think of insulin as that friend. So every night for weeks the bouncers at club "cell" have been letting insulin and his friend sugar in without waiting or paying. Finally one night the bouncer says, "Hey, Insulin, man, you've been here every single night for the last several weeks, and my manager's getting pissed off, he told me I can't keep letting you and your guest in for free." So essentially, what's happened here is that the bouncer for the club is becoming insulin-resistant. He is no longer responding to insulin's requests for entry.

Why Do We Become Insulin Resistant?

Insulin resistance happens when we have too much insulin in our bloodstream on a consistent basis. Why do we have too much insulin on a consistent basis? Because we have too much sugar in the blood on a consistent basis. How do we get too much sugar? We eat too much food too often on a consistent basis! That is the only way our blood sugar is being elevated significantly. However, the stress hormone cortisol can also raise blood sugar levels. So when you combine being stressed-out with eating lots of refined carbohydrates, sugar, chocolate and caffeine you can begin to see how this becomes a problem.

Problems with High Insulin Levels

High insulin levels leads to an inability to lose fat because insulin is a storage hormone. So it takes the sugar and will store it in your muscle cells (limited storage), liver cells (limited storage), and fat cells (unlimited storage.) But insulin doesn't just store it also prevents the enzymes necessary to break things down. So when your insulin levels are constantly high, for example, when you eat food all the time, your body will have a hard time breaking things down because the enzyme it needs will be inhibited by all the insulin in the blood.

Insulin and Cardiovascular Disease

High cholesterol isn't a problem because people are eating too much fat. It is actually because their insulin levels are too high. High insulin levels up-regulates an enzyme in your liver, which produces more cholesterol. Cholesterol from food has literally no impact on blood cholesterol levels. In other words eating sugar, refined carbohydrates,

grains and starches are negatively impacting your cholesterol levels, therefore, increasing your risk of cardiovascular disease. And this has been documented thousands of times in numerous studies.

There was flawed research back in the 1970s stating fats were the enemy and the media ran with this information and it spread like wildfire. We have decreased our fat intake significantly over the last 30 years, but heart disease has continued to climb. It's the number one killer in the entire world. We have made no progress on this. Why is that? We're eating more sugar now than ever before!

Leptin

Insulin also disrupts leptin the hormone that sends the signal to your brain, "Hey, I'm full." At first having too much leptin might sound great but it's not. When our leptin levels are too high we end up with leptin resistance. If you continue to eat and eat and eat and eat and eat, leptin will be constantly secreted by your fat cells to tell your brain, "Hey, we've had enough to eat. We're done."

But at the same time your insulin levels will also be high. This is problematic because high insulin levels disrupt leptin's ability to communicate with the brain. What ends up happening is you eat but you don't have a shut off switch even though a lot of leptin is being secreted. So it's just nonstop eating. This only further elevates insulin making insulin resistance a very big problem.

Insulin and Estrogen Levels

As insulin goes up it up-regulates an enzyme responsible for estrogen production in men and testosterone in women. A lot of guys don't realize how high their estrogen levels are until they get tested. Much of the time elevated estrogen levels are due to the processed garbage foods in their diet which keeps their insulin levels elevated on a consistent basis.

Insulin and Liver Function

So the other big problem is insulin impairs the liver's ability to detoxify your body. All these excess hormones are also going to be a problem. If you have too much estrogen and testosterone in your body, normally the liver would detoxify and bring them back to normal levels. But if your liver's not working properly due to insulin it won't be able to do this. The number one thing I think it is critical for you to understand is sugar is a huge problem in our society for all of these reasons.

Interleukin 6

Insulin has been shown to increase an inflammatory cytokine known as Interleukin six, IL-6 which is not a good thing. Interleukin six is one of the cytokines, inflammatory molecules, that causes a lot of problems in the body. One of the things that it does is it stimulates cortisol and if we have too much cortisol we end up having high blood sugar. Remember, cortisol wants to elevate blood sugar which elevates insulin and the whole cycle begins again!

What You Can Do Nutritionally

The beautiful thing about diabetes and blood sugar issues are they are completely reversible. You can almost get your blood sugar levels back down to normal in one week!

Step 1

You can reverse diabetes with diet alone. If you are somebody who suffers from hypoglycemia (low blood sugar), your best bet is to eat small frequent meals throughout the day, because you want to keep your blood sugar somewhat regular. If you're somebody who already has insulin resistance, you actually want to eat less frequently because you don't want more insulin circulating in your blood. You can even try intermittent fasting, where you have no food for one day, just water. Even if you have hypoglycemia, I believe interjecting days or at least several hours of no food can make a difference and can help regulate your hormones over time.

Our bodies were not built to have food 24/7. 100,000 years ago we didn't have fridges, we didn't have Starbucks. We went through periods of no food; we went through periods of food. We tend to forget that now that we have access to everything under the sun. So with respect to diet, think about cycling your calories. So some days you have a normal amount of calories, some days you have less than normal, and some days you have no calories.

When you cycle your calories, it allows your body to do what it naturally is supposed to do. It helps insulin and leptin to work more efficiently because they are not continuously being secreted. Cycling is more consistent with the way we were programmed to eat.

Next, get off the sugar. Get rid of the caffeine. If it's going to spike blood sugar, you've got to get rid of it. Mitigate the glycemic load of your meals by combining healthy fats, good proteins and fibrous carbohydrates. Remember, fiber, protein and fat will slow how much sugar comes out of your digestive system and into your bloodstream at one time.

Your healthy protein doesn't have to be meat, it could be quinoa, chickpeas, almonds or walnuts. Use good quality oils like olive oil, coconut oil and even butter. These will help you absorb your fat soluble vitamins and lower the glycemic response of your meals.

Step 2

Chromium helps your cells take in glucose which can be very helpful for those with insulin resistance or high blood sugar. You're looking at taking about 500mcgs per day. You obviously want to follow the advice on the label.

Fish oil increases the insulin sensitivity in your skeletal muscle cells. You want to take about two to four tablespoons of fish oil per day, depending on the quality. These are two supplements to consider if you have blood sugar or insulin resistance issues.

Apple cider vinegar has been shown to lower the glycemic load of a food. So if you had a donut, for instance, and you had apple cider vinegar before it the blood sugar response will be lower. Really awesome, one of the best things you can buy. It'll last you forever and it costs nothing.

Finally, cinnamon lowers the blood sugar response. So if you have any kind of sweets add some cinnamon to it. If you have coffee, put some cinnamon in it or if you have some kind of dessert, add some cinnamon because the cinnamon has been shown in numerous studies to reduce the blood sugar response. So those are some really important things to do.

Step 3

You need to manage your stress levels. I don't think I can emphasize this point enough. One of the best ways you can manage your stress is with exercise. Exercise also helps your cells become more sensitive to insulin. The thing is the exercise needs to be intense. So think interval training or circuit training two or three times a week. Just this can make a huge difference.

One study showed that even one ten second sprint improved insulin sensitivity. How crazy is that? That just goes to show you it doesn't have to be long just intense. You should be huffing and puffing and sweating. This will have a huge impact on reversing diabetes and controlling blood sugar levels.

Thyroid

In the brain we have the pituitary gland and in the throat around the level of the Adam's Apple we have the thyroid gland. The thyroid gland secretes the thyroid hormones T4 and T3. About 97% of the hormones secreted by the thyroid are T4. The only problem with that is T4 is an inactive hormone so it must be converted into T3 before its metabolic effects can take place.

The thyroid is the master regulator of the metabolism. It makes every single thing in your body work as it's supposed to. Every single cell in your body requires T3 in order to work properly.

The thyroid regulates your metabolic rate, which is composed of every single metabolic reaction in your body. T3 is so important it doesn't even have a receptor on the cell membrane. It goes right through the cell. Its receptor is on the nucleus inside the cell. That's how powerful it is, which means that it literally bypasses the line, gets into the club, and it goes right up to the DJ booth to put in a request for the song. And the thyroid can communicate directly DNA that's how powerful and important it is.

Thyroid Symptoms

There's a lot of different ways thyroid symptoms can appear. And if you have low thyroid symptoms like fatigue, lethargy, cold hands and feet, dry flaky skin, loss of hair, inability to lose weight, adrenal fatigue it might not mean you have low thyroid hormone levels. The stress hormone cortisol inhibits pituitary function. So if you have high cortisol levels it will inhibit thyroid stimulating hormone (TSH) from communicating with the pituitary. So basically there is plenty of TSH but its communication is cut off. That means there is very little TSH coming to the thyroid which means very little T4 and T3 will be produced.

Now, once we have T4 produced interleukin six, an inflammatory molecule, can impair pituitary and hypothalamus function. Both impair the communication to the pituitary, which is obviously going to impair communication with the thyroid. So when you go to your doctor and say, "I've got all these symptoms of low thyroid function," but if they just put you on thyroid hormone it might not solve your issues at all. That might just be one part of the puzzle.

Let's say your T4 goes to the liver, the only way it can get there is through the blood. The only way it can circulate in the blood is if it's being transported by carriers called thyroid binding globulin (TBG) which is produced in the liver. In the liver T4 is usually converted to T3 because we need T3 as the active form. But if your liver is toxic because of a poor diet, high stress, or if you have a low functioning liver, this conversion is not going to happen very well.

Importance of Gut Flora

Another reason this can happen is called dysbiosis. This happens when you have too much bad bacteria in the gut giving off a toxin called lipopolysaccharide (LPS), which is very problematic in the human body. LPS impairs the conversion of T4 to T3 in the liver.

So you can take all the thyroid hormone you want but if your gut flora is out of whack, you won't be able to convert T4 into its active form. LPS will also impair the pituitary gland's communication with the thyroid gland. Once T3 is in the cell LPS and high cortisol levels block T3's ability to take action in the cell.

Low Vitamin A has also been shown to compromise this as well. And that makes sense, many of us have compromised digestive tracts, so we're not absorbing our fat soluble vitamins A, B and K.

So without T3 thyroid hormones are not able to act on the cell. This means whether it be to grow hair, produce skin, produce enzymes, the cell will not be able to do what it needs to do. This breakdown can happen in a number of places. It can happen at the hypothalamus, it can happen at the pituitary, it can happen at the thyroid gland itself.

Thyroid and Estrogen

If you have too much estrogen in your body, you will have too much thyroid binding globulin. If you have too much of this binder then you don't have enough T3 in the bloodstream and all the cells in your body will suffer. If we have too much estrogen, we're not going to be getting enough of the thyroid hormone in its active form to the cells. So there's a lot of pieces to this puzzle and it's not just about taking more thyroid hormone.

Hashimoto's Disease

Hashimoto's Disease is the most common thyroid dysfunction. The iodide in your food needs to be converted into iodine in your thyroid and the enzyme that does that is cut off in individuals who have Hashimoto's Disease. So that means these people are not getting enough iodine in their systems. This is so important because T3 and T4 both need iodine to be created. Specifically T3 needs 3 iodine molecules and T4 needs 4 iodine molecules.

So essentially when you have Hashimoto's you do not have thyroid hormones being created. The second thing Hashimoto's does is it directly cuts off tyrosine production inside the thyroid cells. So you can see how Hashimoto's and autoimmune disease can become a big problem.

How Do We Get Autoimmune Disease?

Everything we have discussed impacts your gut. And if your gut becomes compromised you can develop leaky gut, then proteins get into the bloodstream that aren't supposed to be there, the immune system goes crazy, it starts recognizing proteins in your body as foreign invaders and starts attacking them.

If your immune system gets over worked, over stressed, over-inflamed, then we can end up developing an autoimmune condition. In my case, it was alopecia, in others it might be Hashimoto's, in others, it could be Graves Disease, which is high thyroid function. So it can manifest itself in a number of different ways.

Now remember the big reason for this is inflammation and stress. In some cases medication might be necessary for example in Hashimoto's Disease, however, it could be as simple as changing your lifestyle. If your liver's not working properly, it's not converting T4 to T3 anyway. If you have too much estrogen, you're going to have too much of the thyroid hormone bound and not free, if you have unhealthy gut flora, then you have more lipopolysaccharide toxins inhibiting pituitary communications to the thyroid, blocking the receptors inside the nucleus of the cells.

In these cases taking thyroid hormone is not going to help you.

What You Can Do

First you want to work on decreasing your inflammation. You can do this through a diet high in vegetables, moderate intake of healthy fats, omega three fatty acids, coconut oil, olive oil, occasional good saturated fats from butter, for instance, but predominantly a plant-based diet, with some healthy meat every now and then, but low sugar, low refined carbohydrates. Get rid of the bad fats, the omega-sixes, the vegetable oils, all that garbage.

Diet is huge. The reason we're so inflamed is because of our food, and we can very easily reverse that. You should add in stress management techniques as well. If you have a specific condition that might need more iodine Sea vegetables, kelp, dulse, nori, are all very high in iodine.

Another thing to consider is, the adrenal glands also compete for tyrosine, because epinephrine requires tyrosine as a building block and so do T4 and T3 hormones. So if you have adrenal fatigue and your adrenals are trying to get more tyrosine, they can compromise the amount of tyrosine available to the thyroid.

You need to reduce stress and cortisol, because cortisol impairs pituitary function. And if the pituitary's not sending TSH to the thyroid, it doesn't really matter what you're taking.

Liver Health

Support your liver, lemon water in the morning, eating lots of green veggies, good vitamin C foods, grapefruits, oranges, these are all very supportive of good liver function. Doing a cleanse, like our total wellness cleanse, can improve liver function. We basically work on cleaning up their liver, which means you'll be able to metabolize more of the estrogen out of the body which means less menopausal hot flashes and stuff like that. They have less PMS. They have more energy. Again, you can't isolate one specific thing in the body. When you clean the entire body up, you clean the entire body up and everything works better as a result.

Again, if you improve liver function, you also improve the amount of thyroid binding globulin. You're not going to have too much of it because you've reduced your estrogen levels. You can get different tests through your doctor, the one thing I do want to mention is that you can do an at-home low thyroid function test, which basically is pretty simple to do. You just need a thermometer.

So what you do is over the course of a week, first thing in the morning you place the thermometer under your arm before you get out of bed for about ten minutes. After ten minutes, you take the reading and write it down. If, over the space of five days, your overall body temperature on average is less than 97.8 or 37.6 Celsius, it could mean

you have some low thyroid symptoms occurring. This test is not the gold standard it is just meant to give you an indication you might want to look into things further.

Gut Flora

Fermented foods provide a natural source of probiotics which can really make a world of a difference for your health. Remember, gut flora is where your immune system comes from.

About 80 percent of your immune system surrounds your gut. There is a very intimate communication between what's happening in your gut and your immune system. If you improve the good bacteria you improve that relationship, you don't produce as much LPS. And if you don't produce as many toxins like LPS, then you don't have a lot of these compromised scenarios.

So get some probiotics and at the very minimum, supplements with a good quality probiotic, ten to 20 to 30 billion CFUs per day. That is what you want to look for. Look for one that has a lot of different probiotic strains, not just like lacto acidophilus, but has ten, 11, 12 or more of those different good bacteria because they will do different things in the body at different points of the digestive tract.

All of these issues with the thyroid can be improved or reversed completely if you do things properly. You can't just supplement with some kind of thyroid hormone or just iodine.

If you don't have adequate thyroid function or adequate thyroid hormone or any of these things going on, you're not going to feel very energetic. You're going to have low body temperature. You're going to feel crappy. You're going to have a tough time losing weight, because your fat cells are not able to metabolically be reactive to break down fat.

Remember, the big thing from clinic, guys, diet is huge.

Get rid of the sugars, control your insulin and clean up the gut flora. It'll make a huge difference for you.